

EXHIBIT B



U.S. FOOD & DRUG ADMINISTRATION

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Class 1 Device Recall Medtronic HeartWare HVAD System



510(k)⁷ | DeNovo⁸ | Registration & Listing⁹ | Adverse Events¹⁰ | Recalls¹¹ | PMA¹² | HDE¹³ | Classification¹⁴ | Standards¹⁵
CFR Title 21¹⁶ | Radiation-Emitting Products¹⁷ | X-Ray Assembler¹⁸ | Medsun Reports¹⁹ | CLIA²⁰ | TPLC²¹

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Class 1 Device Recall Medtronic HeartWare HVAD System



Date Initiated by Firm May 02, 2018

Date Posted May 21, 2018

Recall Status¹ Open³, Classified

Recall Number Z-1903-2018

Recall Event ID [80056](#)²³

PMA Number [P100047](#)²⁴

Product Classification [Ventricular \(assist\) bypass](#)²⁵ - **Product Code** [DSQ](#)²⁶

Product Heartware Medtronic HVAD System for cardiac use. Including the following parts:
(a) Controller / Controller Kits, Product numbers: 1400, 1401, 1403, 1407, 1420
(b) DC Adapter, Product numbers: 1435, 1440
(c) AC Adapter, Product numbers: 1425, 1430
(d) Battery Pack, Product number: 1650DE

Indication for Use for OUS HVAD System: The HVAD System is intended for use in patients at risk of death from refractory end-stage heart failure. The HVAD System is designed for in-hospital and out-of-hospital settings, including transportation via fixed wing aircraft or helicopter.

Code Information ALL SERIAL NUMBERS UPN/GTIN: (a) 1400 and 1401: distributed prior to GTN requirement 1403: 00888707000116, 00888707000475 1407: '00888707000291, '00888707000727, '00888707000710, 00888707000734, '00888707000741, '00888707000765, '00888707000758, '00888707000789, '00888707000772, '00888707000499, '00888707000796, '00888707000802, '00888707000819, '00888707000482, '008887070004534, '00888707001670, '00888707001656, '00888707001663, '00888707001670, '00888707001687, '00888707001694, '00888707001700, '00888707001717, '00888707001724, '00888707001731, '00888707001748, '00888707001755, '00888707001762, '00888707002813, '00888707002820, '00888707002837, '00888707002844, '00888707002851, '00888707001472 1420: '00888707000420, '00888707000437, '00888707002660 (b) 1435: '00888707000109 1440: '00888707000260, '00888707001885, '00888707001496, '00888707002745 (c) 1425: '00888707000093 1430: '00888707000307, '00888707000826, '00888707000833, '00888707000840, '00888707000857, '00888707000871, '00888707000864, '00888707000888, '00888707000901, '00888707000505, '00888707000895, '00888707000918, '00888707001489, '00888707001779, '00888707001786, '00888707001793, '00888707001809, '00888707001816, '00888707001823, '00888707001830, '00888707001847, '00888707001854, '00888707001861, '00888707001878, '00888707002738, '00888707002769, '00888707002776, '00888707002783, '00888707002790, '00888707002806, '00888707004817 (d) 1650DE: 00888707000369, 00888707001373, '00888707001588, '00888707001366, '00888707002684 '00888707002646, '00888707002653, '00888707000376

Recalling Firm/Manufacturer Heartware
14400 NW 60th Ave
Miami Lakes FL 33014-2807

For Additional Information Contact 877-367-4823

Manufacturer Reason Possible transient electrical connection interruption between an HVAD System power source (Battery, AC Adapter, or

for Recall

DC Adapter) and the Controller, while the power source is connected, that may cause unintended switching to the secondary power source and/or unexpected audible tones (beeping). The interruption typically lasts 1-2 seconds, due to oxidation between power source connector and socket.

FDA Determined Cause²

Device Design

Action

The firm notified physicians and healthcare professionals about the device correction by letter on 05/02/2018. The letter explained problem and provided recommendations for effective power source management of the system.

Medtronic began notifying VAD Clinicians in the US on May 31, 2018, mainly via 2-day courier, and OUS via locally approved methods, of a newly available field service. A field service for application of a lubricant to the HVAD System power source connectors to mitigate the potential for transient interruptions of the electrical connection between an HVAD System power source (Battery, AC Adapter, or DC Adapter) and the HVAD Controller is now available.

Quantity in Commerce

175878 devices

Distribution

Worldwide Distribution including US Nationwide, Argentina, Australia, Austria, Belarus, Belgium, Brazil, Canada, Chile, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Israel, Italy, Japan, Kazakhstan, Korea, , Kuwait, Latvia, Lebanon, Lithuania, Luxembourg, Malaysia, Netherlands, New Zealand, Norway, Poland, Romania, Saudi Arabia, Serbia, Singapore, Slovakia, South Africa, Spain, Sweden, Switzerland, Taiwan, Turkey, Ukraine, United Arab Emirates, and Vietnam.

Total Product Life Cycle

[TPLC Device Report²⁷](#)

¹ A record in this database is created when a firm initiates a correction or removal action. The record is updated if the FDA identifies a violation and classifies the action as a recall, and it is updated for a final time when the recall is terminated. Learn more about [medical device recalls²⁸](#).

² Per FDA policy, recall cause determinations are subject to modification up to the point of termination of the recall.

³ The manufacturer has initiated the recall and not all products have been corrected or removed. This record will be updated as the status changes.

PMA Database

[PMAs with Product Code = DSQ and Original Applicant = Medtronic²⁹](#)

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1. <http://www.addthis.com/bookmark.php?u508=true&v=152&username=fdomain>
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4. <http://www.fda.gov/MedicalDevices/default.htm>
5. <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Databases/default.htm>
6. </scripts/cdrh/devicesatfda/index.cfm>
7. </scripts/cdrh/cfdocs/cfPMN/pmn.cfm>
8. </scripts/cdrh/cfdocs/cfpmn/denovo.cfm>
9. </scripts/cdrh/cfdocs/cfRL/rl.cfm>
10. </scripts/cdrh/cfdocs/cfMAUDE/TextSearch.cfm>
11. </scripts/cdrh/cfdocs/cfRES/res.cfm>
12. </scripts/cdrh/cfdocs/cfPMA/pma.cfm>
13. </scripts/cdrh/cfdocs/cfHDE/hde.cfm>
14. </scripts/cdrh/cfdocs/cfPCD/classification.cfm>
15. </scripts/cdrh/cfdocs/cfStandards/search.cfm>
16. </scripts/cdrh/cfdocs/cfCFR/CFRSearch.cfm>

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18. /scripts/cdrh/cfdocs/cfAssem/assembler.cfm
19. /scripts/cdrh/cfdocs/Medsun/searchReportText.cfm
20. /scripts/cdrh/cfdocs/cfClia/Search.cfm
21. /scripts/cdrh/cfdocs/cfTPLC/tpic.cfm
22. <http://www.fda.gov/safety/recalls/enforcementreports/default.htm>
23. /scripts/cdrh/cfdocs/cfRES/res.cfm?start_search=1&event_id=80056
24. /scripts/cdrh/cfdocs/cfpma/pma.cfm?ID=P100047
25. /scripts/cdrh/cfdocs/cfPCD/classification.cfm?ID=DSQ
26. /scripts/cdrh/cfdocs/cfPCD/classification.cfm?ID=DSQ
27. /scripts/cdrh/cfdocs/cfTPLC/tpic.cfm?id=DSQ
28. <http://www.fda.gov/MedicalDevices/Safety/ListofRecalls/ucm329946.htm>
29. /scripts/cdrh/cfdocs/cfPMA/pma.cfm?start_search=1&productcode=DSQ&applicant=Medtronic

Page Last Updated: 01/18/2020

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10. /scripts/cdrh/cfdocs/cfMAUDE/TextSearch.cfm
11. /scripts/cdrh/cfdocs/cfRES/res.cfm
12. /scripts/cdrh/cfdocs/cfPMA/pma.cfm
13. /scripts/cdrh/cfdocs/cfHDE/hde.cfm
14. /scripts/cdrh/cfdocs/cfPCD/classification.cfm
15. /scripts/cdrh/cfdocs/cfStandards/search.cfm
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21. /scripts/cdrh/cfdocs/cfTPLC/tpic.cfm
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23. /scripts/cdrh/cfdocs/cfRES/res.cfm?start_search=1&event_id=80056

24. /scripts/cdrh/cfdocs/cfpma/pma.cfm?ID=P100047
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